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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,324	12/17/2001	Weijian Ma	277_022	2288

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EXAMINER

COMAS, YAHVEH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,324

Applicant(s)

MA ET AL.

Examiner

Yahveh Comas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-9 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 703. 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1, 2 and 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. U.S. Patent No. 6,570,282 in view of Ineson et al. U.S. Patent No. 5,334,897.

Ito discloses a cylinder servomotor (63) including a rotor assembly containing permanent magnets mounted inside the housing (72), the stator of said servomotor (63) containing the motor windings and encircling the rotor assembly. Also disclose a ball screw shaft (68) aligned along the axis having a ball screw nut (67) mounted upon the extended end of said shaft so that said nut moves axially along the shaft as the shaft rotated by the motor, a push bar unit (65) being connected to said ball screw nut for movement along the axis and a control means (81) connected to the motor for activating the motor to advance or retract the push bar a desired linear distance but doesn't disclose a tapered circular wedge tightly wedged between the stator and the inner wall of the housing to stationary support the rotor within the housing. However, Ineson disclose a tapered wedge (14) between the stator and the housing for supporting the stator.

It would have been obvious to one having skill in the art at the time the invention was made to modify Ito's invention and provide a tapered circular wedge tightly wedged between the stator and the inner wall of the housing to stationary support the rotor within the housing.

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3. Claim 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. U.S. Patent No. 6,570,282 in view of Ineson et al. U.S. Patent No. 5,334,897 in further view of Appleford et al. 6,572,076.

Ito, as modify above, disclose the claimed invention except for include a thrust bearing means acting upon the rotor assembly for attenuating the thrust load and relieving axial loads acting upon the rotor assembly. However, Appleford disclose a valve actuator that provides a thrust bearing for the purpose of support the axial load.

It would have been obvious to one having skill in the art at the time the invention was made to modify Ito's invention and provide a thrust bearing means acting upon the rotor assembly for attenuating the thrust load and relieving axial loads acting upon the rotor assembly.

Allowable Subject Matter

4. Claim 3, 5 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (703) 305-3419. The examiner can normally be reached on M - F 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 308-0956 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

YC
July 24, 2003

A handwritten signature in black ink, appearing to read 'N. Ponomarenko', with a long horizontal stroke extending to the right.

Nicholas Ponomarenko
Primary Examiner
Technology Center 2800